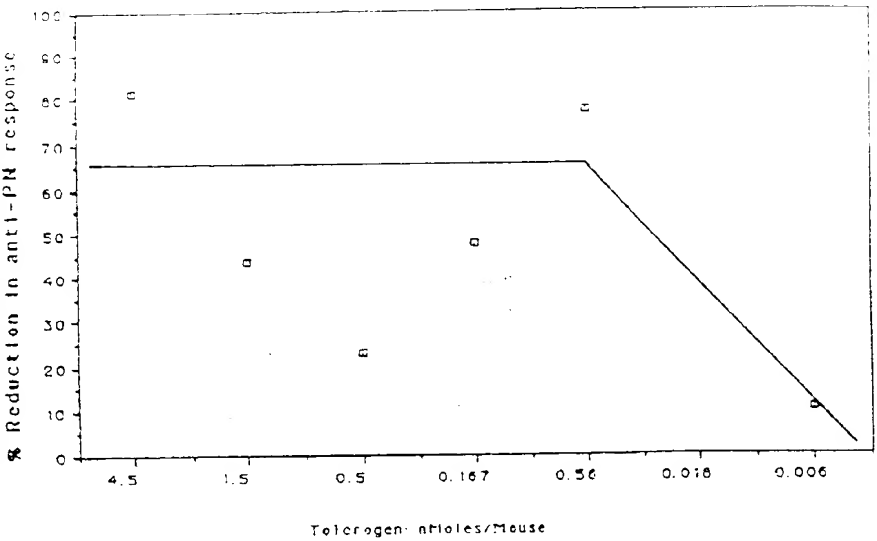

% Reduction in anti-PN response
100
90
80
70
60
50
40
30
20
10
0
4.5
1.5
0.5
0.167
0.56
0.018
0.006
Tolcrogen- nMoles/Mouse

FIGURE 1

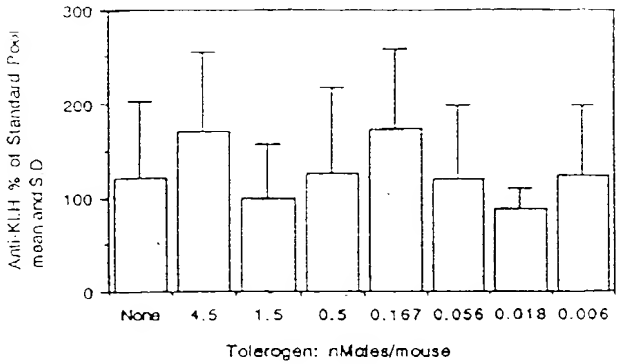

300
200
100
0
Anti-KLH % of Standard Pool mean and S.D.
None
4.5
1.5
0.5
0.167
0.056
0.018
0.006
Tolerogen: nMoles/mouse

FIGURE 2

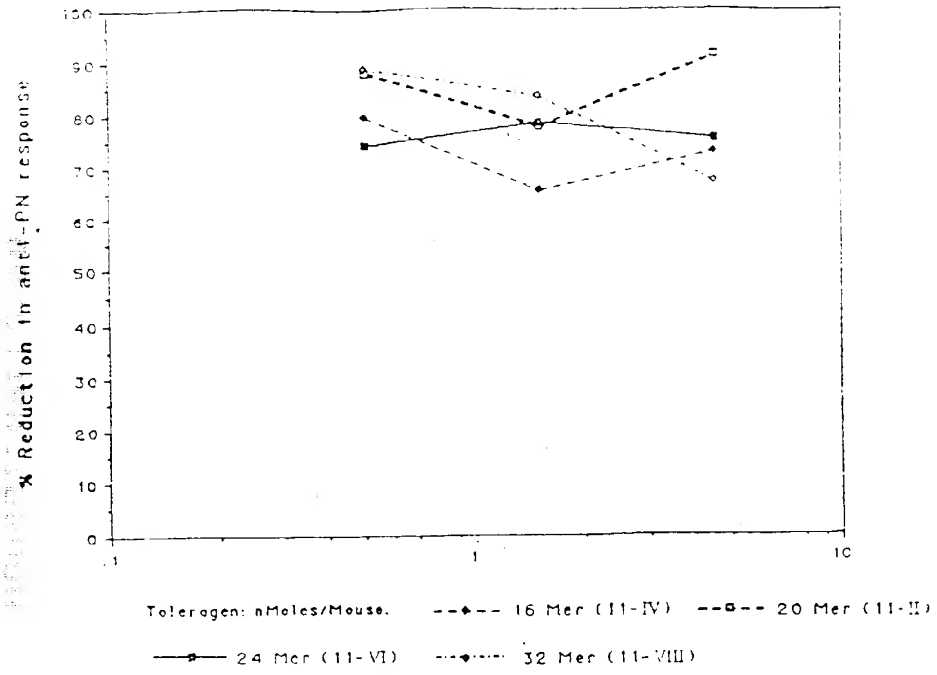

% Reduction in anti-PN response
100
90
80
70
60
50
40
30
20
10
0
.1
1
10
Toleragen: nMoles/Mouse.
16 Mer (II-IV)
20 Mer (II-I)
24 Mer (II-VI)
32 Mer (II-VIII)

FIGURE 3

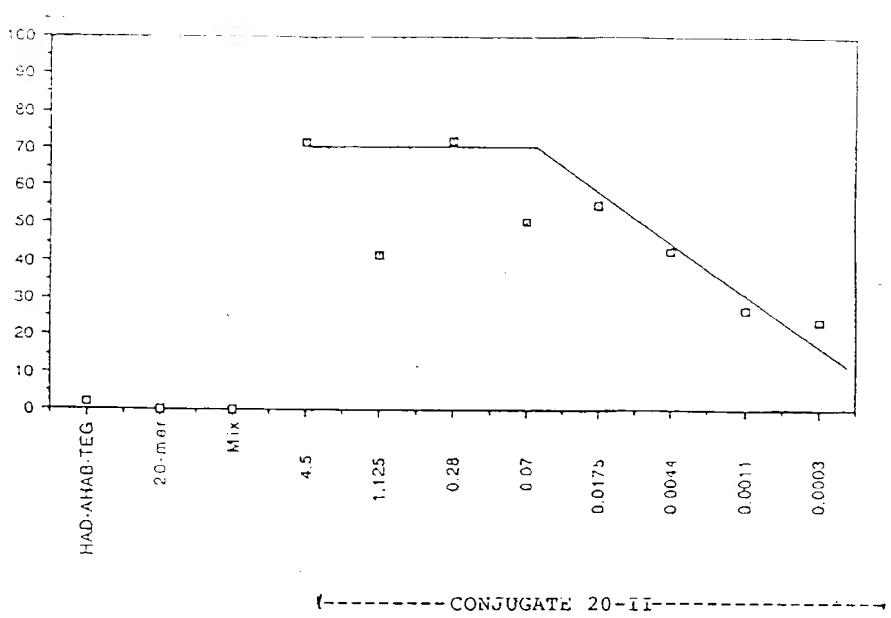

% Reduction in anti-PN response
100
90
80
70
60
50
40
30
20
10
0
HAD-AHAB-TEG
20-mer
Mix
4.5
1.125
0.28
0.07
0.0175
0.0044
0.0011
0.0003
CONJUGATE 20-II
Tolerogen: nmoles/mouse

FIGURE 4

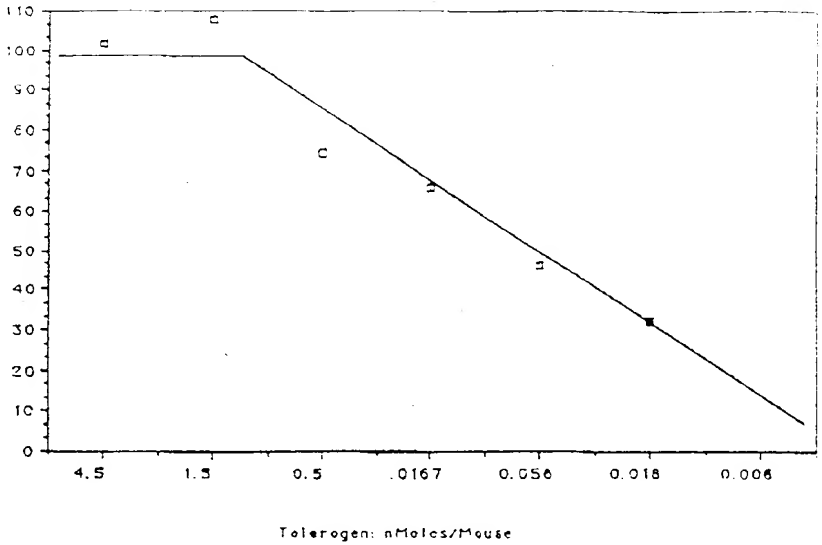
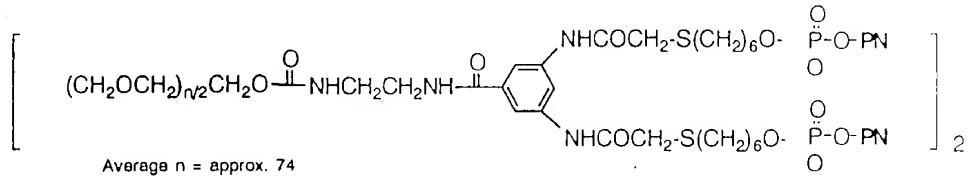

% Reduction in anti-PN response
110
100
90
80
70
60
50
40
30
20
10
0
4.5
1.5
0.5
.0167
0.056
0.018
0.006
Tolerogen: nMoles/Mouse

FIGURE 5

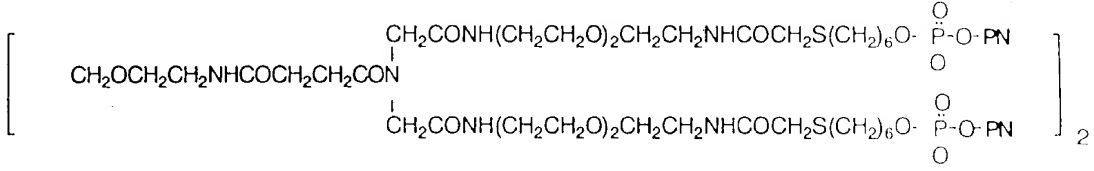


Average n = approx. 74

DABA-PEG

3-I, **PN** = $(CA)_{10}$

3-II, **PN** = $(CA)_{10}.(TG)_{10}$



$BAHA_{ox}$-EDDA

11-I, **PN** = $(CA)_{10}$

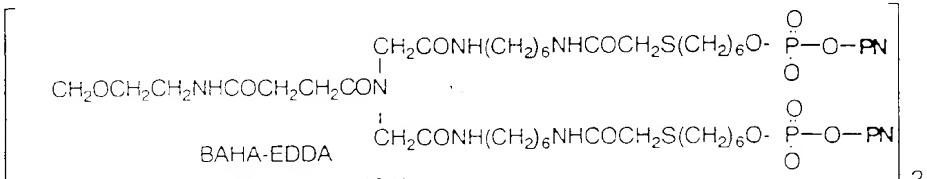
11-II, **PN** = $(CA)_{10}.(TG)_{10}$

11-IV, **PN** = $(CA)_{8}.(TG)_{8}$

11-VI, **PN** = $(CA)_{12}.(TG)_{12}$

11-VIII, **PN** = $(CA)_{16}.(TG)_{16}$

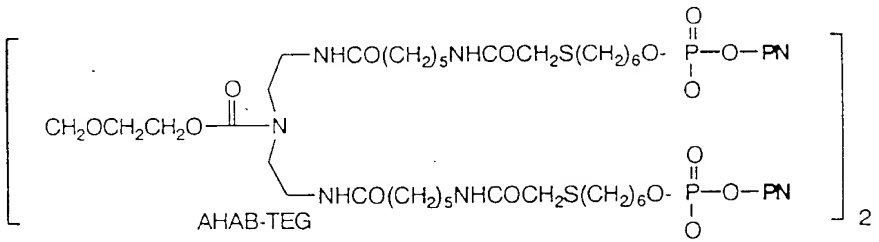
FIGURE 6A



BAHA-EDDA

17-I PN = $(CA)_{10}$

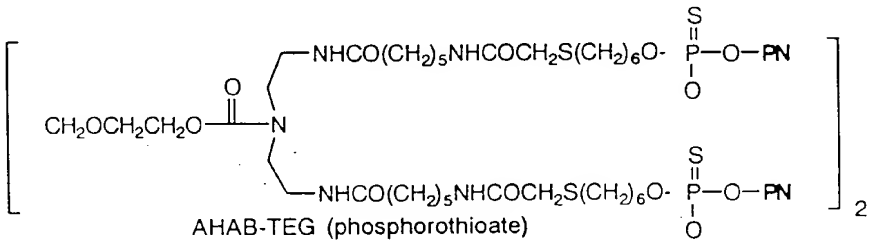
17-II PN = $(CA)_{10}.(TG)_{10}$



AHAB-TEG

20-I PN = $(CA)_{10}$

20-II PN = $(CA)_{10}.(TG)_{10}$

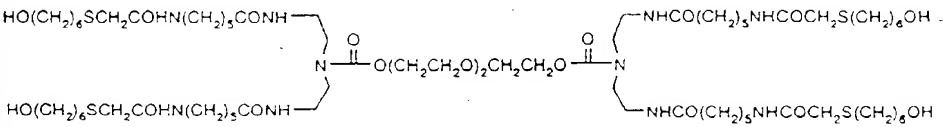


AHAB-TEG (phosphorothioate)

20-III PN = $(CA)_{10}$

20-IV PN = $(CA)_{10}.(TG)_{10}$

FIGURE 6B



HAD-AHAB-TEG

FIGURE 7

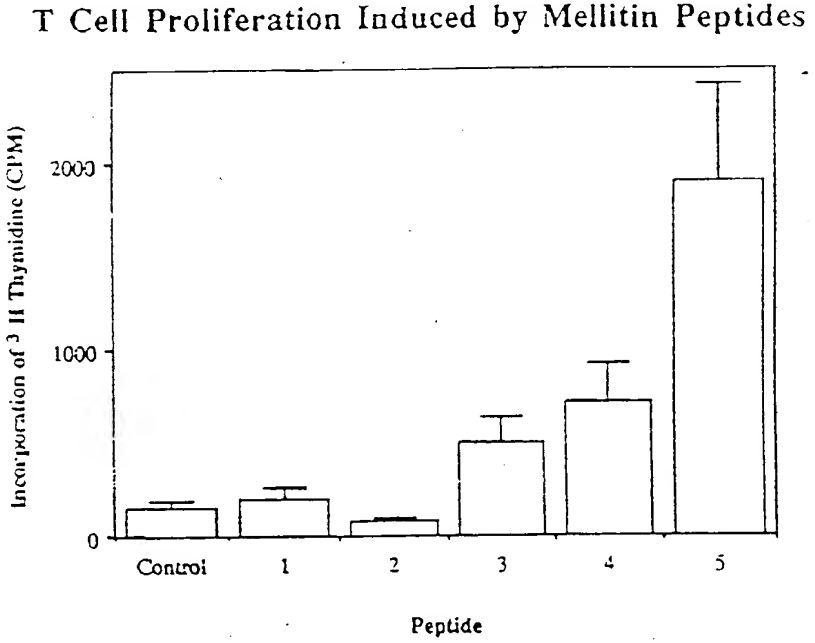

T Cell Proliferation Induced by Mellitin Peptides
Incorporation of 3 H Thymidine (CPM)
2000
1000
0
Control
1
2
3
4
5
Peptide

FIGURE 8

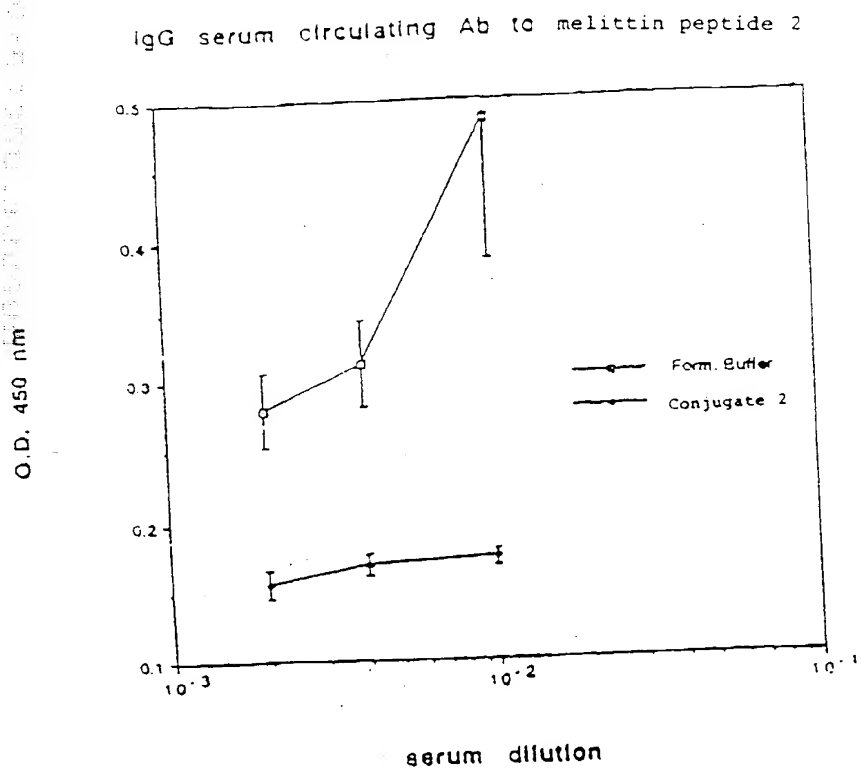

IgG serum circulating Ab to melittin peptide 2
O.D. 450 nm
0.5
0.4
0.3
0.2
0.1
Form. Buffer
Conjugate 2
10-3
10-2
10-1
serum dilution

FIGURE 9

IgG serum circulating levels to Melittin

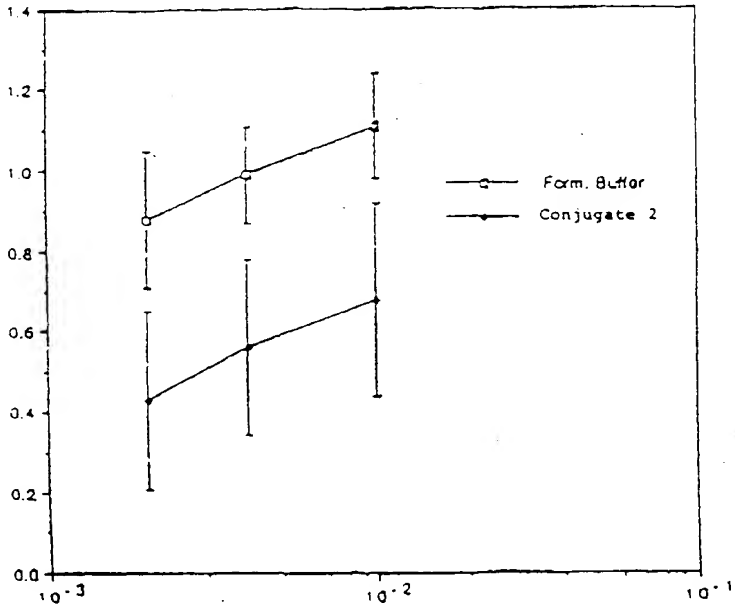


FIGURE 10

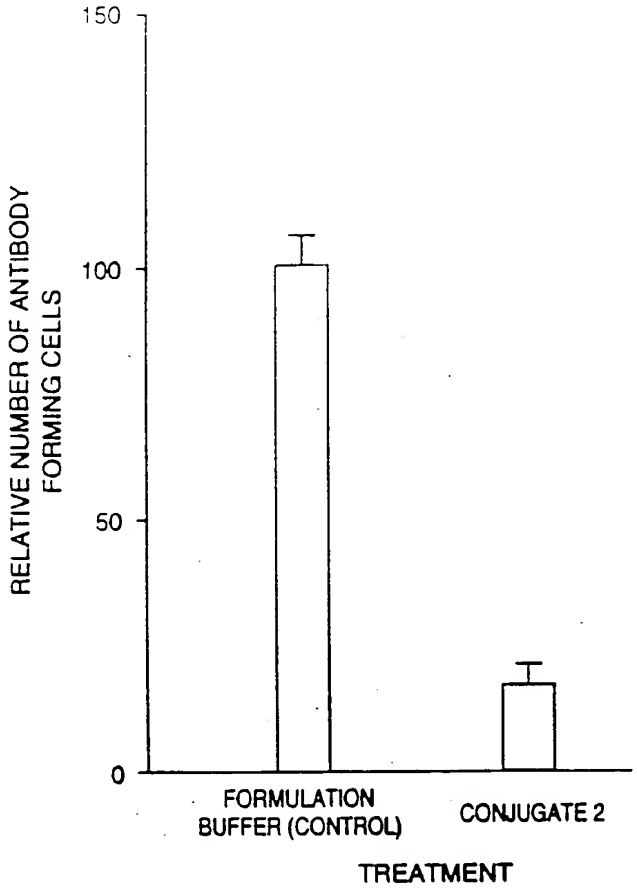

150
100
50
0
RELATIVE NUMBER OF ANTIBODY FORMING CELLS
FORMULATION BUFFER (CONTROL)
CONJUGATE 2
TREATMENT

FIGURE 11

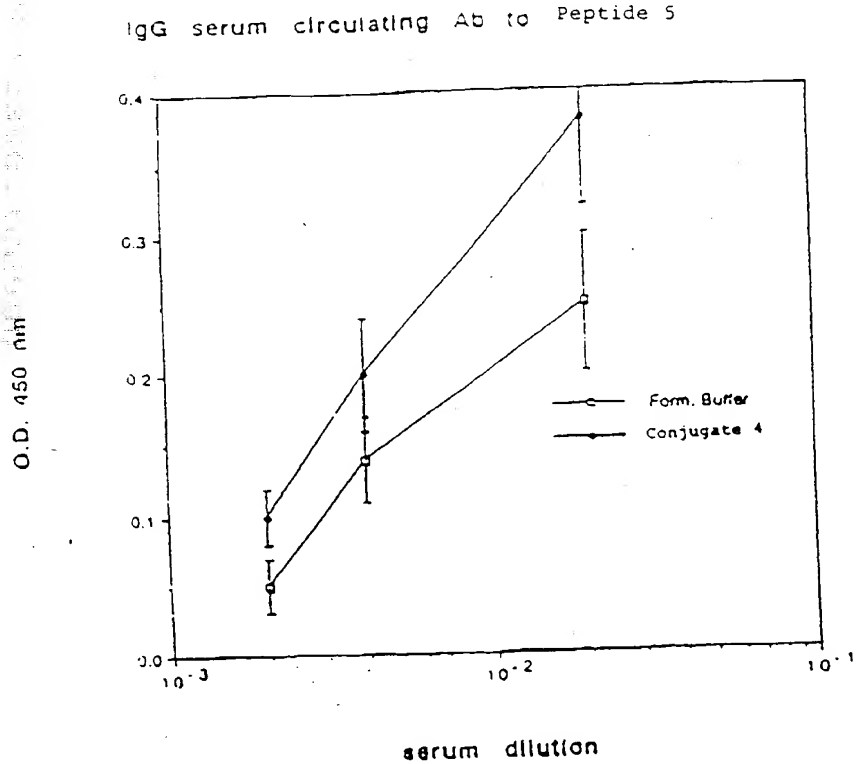
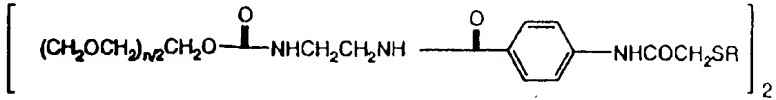

IgG serum circulating Ab to Peptide 5
O.D. 450 nm
0.4
0.3
0.2
0.1
0.0
Form. Buffer
Conjugate 4
10-3
10-2
10-1
serum dilution

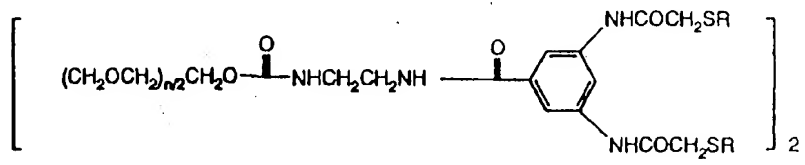
FIGURE 12

Melittin Peptide Conjugates



Melittin Conjugate # 1, R = H_2N-Trp-Ile-Lys-Arg-Lys-Arg-Gln-Gln-Lys-Cys-Gly-CO_2H

Average n = approx. 74



Melittin Conjugate # 2, R = H_2N-Cys-Trp-Ile-Lys-Arg-Lys-Arg-Gln-Gln-Gly-CO_2H
Melittin Conjugate # 3, R = H_2N-Trp-Ile-Lys-Arg-Lys-Arg-Gln-Gln-Lys-Cys-Gly-CO_2H
Melittin Conjugate # 4, R = H_2N-Cys-Ile-Ser-Trp-Ile-Lys-Arg-Lys-Arg-Gln-Gln-Gly-CO_2H
Melittin Conjugate # 5, R = (H_2N-Trp-Ile-Lys-Arg-Lys-Arg-Gln-Gln)$_2$-Lys-Cys-Gly-CO_2H

Melittin peptides attached through sulfur atom on added cysteine, average n = approx. 74

FIGURE 13

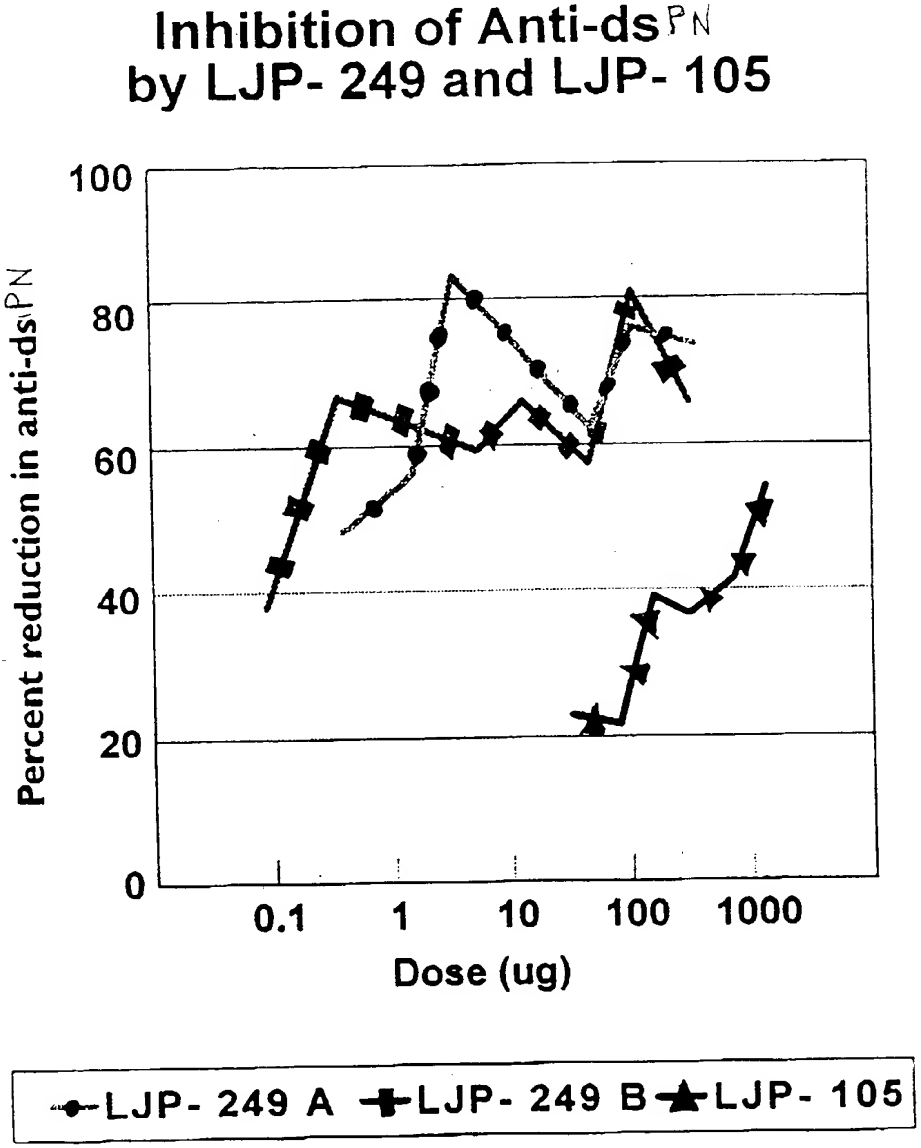

Inhibition of Anti-dsPN
by LJP- 249 and LJP- 105
Percent reduction in anti-dsPN
100
80
60
40
20
0
0.1
1
10
100
1000
Dose (ug)
LJP- 249 A
LJP- 249 B
LJP- 105

FIGURE 14

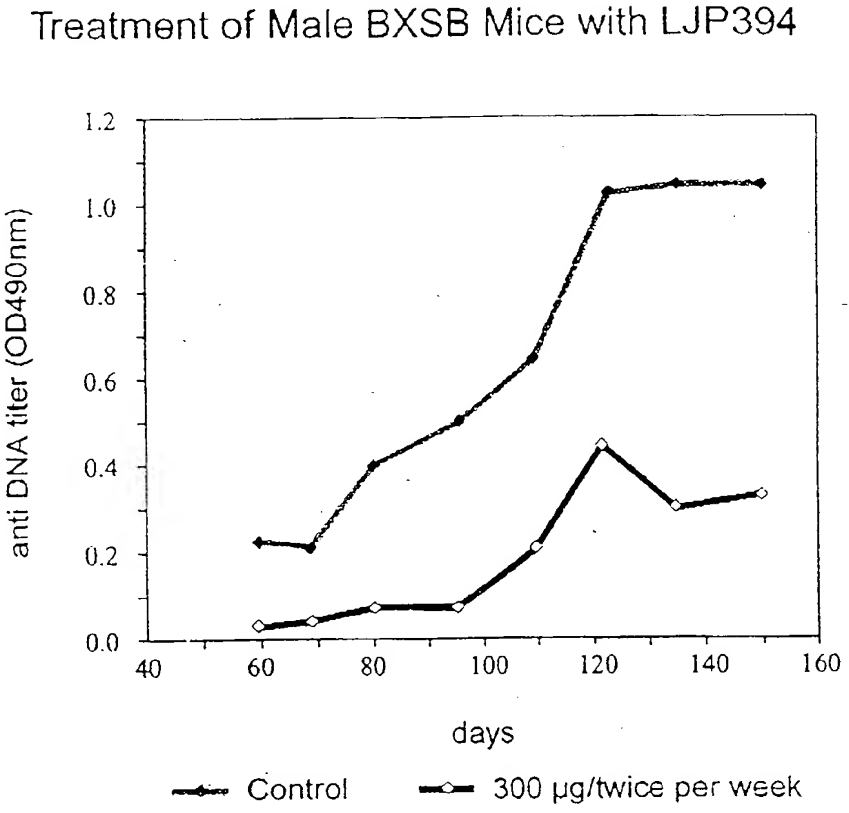

Treatment of Male BXSB Mice with LJP394
anti DNA titer (OD490nm)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
40
60
80
100
120
140
160
days
Control
300 µg/twice per week

FIGURE 15